

AMENDMENTS IN THE CLAIMS:

1. (Original) A write-once read-many information recording medium, wherein:

at least one disc management working area is sequentially allocated in a predetermined direction;

in the at least one disc management working area, disc management information, which is management information about the write-once read-many information recording medium, and disc definition structure containing positional information about the disc management information, are provided;

latest disc management information and latest disc definition structure are provided, wherein the latest disc management information precedes the latest disc definition structure in the predetermined direction;

the latest disc management information is disc management information provided in a recorded disc management working area neighboring a border between the recorded disc management working area and an unrecorded disc management working area;

the latest disc definition structure is a disc definition structure containing positional information about the latest disc management information; and

the latest disc definition structure is provided at a predetermined position in the recorded disc management working area neighboring the border, the predetermined position being capable of being calculated based on the border as a reference.

2. (Original) A write-once read-many information recording medium according to claim 1, wherein:

the disc management information has a variable size; and

the disc definition structure has a fixed size.

3. (Original) A write-once read-many information recording medium according to claim 1, wherein:

the write-once read-many information recording medium contains a data area for recording data and a spare area, the spare area being a replacement area for the data area;

the disc management information contains a replacement list containing correspondence relationship information indicating a correspondence relationship between a replacement source area contained in the data area and a replacement destination area contained in the spare area; and

the disc definition structure contains replacement list positional information which is positional information about the replacement list.

4. (Original) A write-once read-many information recording medium according to claim 3, wherein:

the predetermined direction is a direction from an inner periphery to an outer periphery of the write-once read-many information recording medium; and

the latest disc definition structure is provided at a predetermined position which is capable of being calculated based on an end of the recorded disc management working area neighboring the border as a reference.

5. (Original) A write-once read-many information recording medium according to claim 3, wherein:

the predetermined direction is a direction from an outer periphery to an inner periphery of the write-once read-many information recording medium; and

the latest disc definition structure is provided at a predetermined position which is capable of being calculated based on a beginning of the recorded disc management working area neighboring the border as a reference.

6. (Original) A write-once read-many information recording medium according to claim 4, wherein:

the disc management working area contains a plurality of blocks;

each of the plurality of blocks is a unit for recording/reproducing data; and

the disc management information and the disc definition structure are provided in different blocks in the plurality of blocks.

7. (Original) A write-once read-many information recording medium according to claim 4, wherein:

the disc management working area contains one or more blocks;

each of the one or more blocks is a unit for recording/reproducing data;

the disc management information and the disc definition structure shares at least one of the one or more blocks; and

the disc definition structure is provided at a predetermined position in a predetermined block among blocks contained in the recorded disc management working area neighboring the border, the predetermined block being capable of being calculated based on the border as a reference.

8. (Original) A write-once read-many information recording medium according to claim 4, wherein:

a finalization identifying flag is recorded in the write-once read-many information recording medium; and

the finalization identifying flag indicates prohibition of additionally recording data into the at least one disc management working area.

9. (Original) A write-once read-many information recording medium according to claim 8, wherein:

at least one of the disc definition structure and the disc management information contains the finalization identifying flag.

10. (Original) A write-once read-many information recording medium according to claim 4, wherein:

the write-once read-many information recording medium contains at least one disc management area;

in the at least one disc management area, the last disc management information and the last disc definition structure are provided;

the last disc management information is the latest disc management information provided in the at least one disc management area;

the last disc definition structure is a disc definition structure containing positional information about the last disc management information; and

the last disc management information and the last disc definition structure are provided from a beginning of the at least one disc management area, wherein the last disc definition structure precedes the last disc management information in the direction from the inner periphery to the outer periphery of the write-once read-many information recording medium.

11. (Original) A write-once read-many information recording medium according to claim 5, wherein:

the disc management working area contains a plurality of blocks;

each of the plurality of blocks is a unit for recording/reproducing data; and

the disc management information and the disc definition structure are provided in different blocks in the plurality of blocks.

12. (Original) A write-once read-many information recording medium according to claim 5, wherein:

the disc management working area contains one or more blocks;

each of the one or more blocks is a unit for recording/reproducing data;

the disc management information and the disc definition structure shares at least one of the one or more blocks; and

the disc definition structure is provided at a predetermined position in a predetermined block among blocks contained in the recorded disc management working area neighboring the border, the predetermined block being capable of being calculated based on the border as a reference.

13. (Original) A write-once read-many information recording medium according to claim 5, wherein:

a finalization identifying flag is recorded in the write-once read-many information recording medium; and

the finalization identifying flag indicates prohibition of additionally recording data into the at least one disc management working area.

14. (Original) A write-once read-many information recording medium according to claim 13, wherein at least one of the disc definition structure and the disc management information contains the finalization identifying flag.

15. (Original) A write-once read-many information recording medium according to claim 5, wherein:

the write-once read-many information recording medium contains at least one disc management area;

in the at least one disc management area, the last disc management information and the last disc definition structure are provided;

the last disc management information is the latest disc management information provided in the at least one disc management area;

the last disc definition structure is a disc definition structure containing positional information about the last disc management information; and

the last disc management information and the last disc definition structure are provided from a beginning of the at least one disc management area, wherein the last disc definition structure precedes the last disc management information in the direction from the inner periphery to the outer periphery of the write-once read-many information recording medium.

16. (Original) An information recording method for recording information onto a write-once read-many information recording medium, wherein

at least one disc management working area is sequentially provided in a predetermined direction on the write-once read-many information recording medium,

the information recording method comprising the steps of:

(a) selecting an unrecorded disc management working area neighboring a border between a recorded disc management working area and the unrecorded disc management working area;

(b) recording disc management information, which is management information about the write-once read-

many information recording medium, into the unrecorded disc management working area neighboring the border; and

(c) recording a disc definition structure containing positional information about the disc management information recorded in the step (b) into the unrecorded disc management working area neighboring the border,

wherein the disc management information and the disc definition structure are provided in the predetermined direction, the disc management information preceding the disc definition structure in the predetermined direction, and

the disc definition structure is provided at a predetermined position in the unrecorded disc management working area neighboring the border, the predetermined position being capable of being calculated based on the border as a reference.

17. (Original) An information recording method according to claim 16, wherein the disc management information has a variable size and the disc definition structure has a fixed size.

18. (Original) An information recording method according to claim 16, wherein:

the write-once read-many information recording medium contains a data area for recording data and a spare area, the spare area being a replacement area for the data area;

the disc management information contains a replacement list containing correspondence relationship information indicating a correspondence relationship between a replacement source area contained in the data area and a replacement destination area contained in the spare area; and

the disc definition structure contains replacement list positional information which is positional information about the replacement list.

19. (Original) An information recording method according to claim 16, wherein:

the predetermined direction is a direction from an inner periphery to an outer periphery of the write-once read-many information recording medium; and

the disc definition structure containing the positional information about the disc management information recorded in the step (b) is provided at a predetermined position which is capable of being calculated based on an end of the unrecorded disc management working area neighboring the border as a reference.

20. (Original) An information recording method according to claim 16, wherein:

the predetermined direction is a direction from an outer periphery to an inner periphery of the write-once read-many information recording medium; and

the disc definition structure containing the positional information about the disc management information recorded in the step (b) is provided at a predetermined position which is capable of being calculated based on a beginning of the unrecorded disc management working area neighboring the border as a reference.

21. (Original) An information recording method according to claim 19, wherein:

the step (b) further comprises determining whether or not the recording of the disc management information has been normally performed;

the step (c) further comprise determining whether or not the recording of the disc definition structure has been normally performed; and

the information recording method further comprises the step of:

(d) repeatedly performing the step (b) until the recording of the disc management information is normally performed, and repeatedly performing the step (c) until the recording of the disc definition structure is normally performed.

22. (Original) An information recording method according to claim 20, wherein:

the step (b) further comprises determining whether or not the recording of the disc management information has been normally performed;

the step (c) further comprises determining whether or not the recording of the disc definition structure has been normally performed; and

the information recording method further comprises the step of:

(d) repeatedly performing the step (b) until the recording of the disc management information is normally performed, and repeatedly performing the step (c) until the recording of the disc definition structure is normally performed.

23. (Original) An information reproduction method for reproducing information from a write-once read-many information recording medium, wherein:

at least one disc management working area is sequentially allocated in a predetermined direction on the write-once read-many information recording medium;

in the at least one disc management working area, disc management information, which is management information about the write-once read-many information recording medium, and disc definition structure containing positional information about the disc management information, are provided;

latest disc management information and latest disc definition structure are provided in the predetermined

direction, the latest disc management information preceding the latest disc definition structure in the predetermined direction;

the latest disc management information is disc management information provided in a recorded disc management working area neighboring a border between the recorded disc management working area and an unrecorded disc management working area;

the latest disc definition structure is a disc definition structure containing positional information about the latest disc management information;

the latest disc definition structure is provided at a predetermined position in the recorded disc management working area neighboring the border, the predetermined position being capable of being calculated based on the border as a reference,

the information reproduction method comprising the steps of:

(a) searching for a position of the border to obtain border positional information indicating the position of the border;

(b) reproducing the latest disc definition structure based on the border positional information;

(c) obtaining positional information about the latest disc management information based on the latest disc definition structure; and

(d) reproducing the disc management information based on the positional information about the latest disc management information.

24. (Original) An information reproduction method according to claim 23, wherein the disc management information has a variable size and the disc definition structure has a fixed size.

25. (Original) An information reproduction method according to claim 23, wherein:

the write-once read-many information recording medium contains a data area for recording data and a spare area, the spare area being a replacement area for the data area;

the disc management information contains a replacement list containing correspondence relationship information indicating a correspondence relationship between a replacement source area contained in the data area and a replacement destination area contained in the spare area; and

the disc definition structure contains replacement list positional information which is positional information about the replacement list.

26. (Original) An information reproduction method according to claim 25, wherein:

the predetermined direction is a direction from an inner periphery to an outer periphery of the write-once read-many information recording medium; and

the latest disc definition structure is provided at a predetermined position which is capable of being calculated based on an end of the recorded disc management working area neighboring the border as a reference.

27. (Original) An information reproduction method according to claim 25, wherein:

the predetermined direction is a direction from an outer periphery to an inner periphery of the write-once read-many information recording medium; and

the latest disc definition structure is provided at a predetermined position which is capable of being calculated based on a beginning of the recorded disc management working area neighboring the border as a reference.

28. (Original) An information recording apparatus for recording information onto a write-once read-many information recording medium, wherein

at least one disc management working area is sequentially provided in a predetermined direction on the write-once read-many information recording medium,

the information recording apparatus comprising:

(a) a section for selecting an unrecorded disc management working area neighboring a border between a recorded disc management working area and the unrecorded disc management working area;

(b) a section for recording disc management information, which is management information about the write-once read-many information recording medium, into the unrecorded disc management working area neighboring the border;

(c) a section for recording a disc definition structure containing positional information about the disc management information recorded in the step (b) into the unrecorded disc management working area neighboring the border,

wherein the disc management information and the disc definition structure are provided in the predetermined direction, the disc management information preceding the disc definition structure in the predetermined direction, and

the disc definition structure is provided at a predetermined position in the unrecorded disc management working area neighboring the border, the predetermined position being capable of being calculated based on the border as a reference.

29. (Original) An information recording apparatus according to claim 28, wherein the disc management information has a variable size and the disc definition structure has a fixed size.

30. (Original) An information recording apparatus according to claim 28, wherein:

the write-once read-many information recording medium contains a data area for recording data and a spare area, the spare area being a replacement area for the data area;

the disc management information contains a replacement list containing correspondence relationship information indicating a correspondence relationship between a replacement source area contained in the data area and a replacement destination area contained in the spare area; and

the disc definition structure contains replacement list positional information which is positional information about the replacement list.

31. (Original) An information recording apparatus according to claim 28, wherein:

the predetermined direction is a direction from an inner periphery to an outer periphery of the write-once read-many information recording medium; and

the disc definition structure containing the positional information about the disc management information recorded by the section (b) is provided at a predetermined position which is capable of being calculated based on an end of the unrecorded disc management working area neighboring the border as a reference.

32. (Original) An information recording apparatus according to claim 28, wherein:

the predetermined direction is a direction from an outer periphery to an inner periphery of the write-once read-many information recording medium; and

the disc definition structure containing the positional information about the disc management information recorded by the section (b) is provided at a predetermined

position which is capable of being calculated based on a beginning of the unrecorded disc management working area neighboring the border as a reference.

33. (Original) An information recording apparatus according to claim 31, wherein:

the section (b) further comprises a section for determining whether or not the recording of the disc management information has been normally performed;

the section (c) further comprise a section for determining whether or not the recording of the disc definition structure has been normally performed; and

the information recording apparatus further comprises:

(d) a section for repeatedly performing recording of the disc management information until the recording of the disc management information is normally performed, and repeatedly performing recording of the disc definition structure until the recording of the disc definition structure is normally performed.

34. (Original) An information recording apparatus according to claim 32, wherein:

the section (b) further comprises a section for determining whether or not the recording of the disc management information has been normally performed;

the section (c) further comprises a section for determining whether or not the recording of the disc definition structure has been normally performed; and

the information recording apparatus further comprises:

(d) a section for repeatedly performing recording of the disc management information until the recording of the disc management information is normally performed, and repeatedly performing recording of the disc

definition structure until the recording of the disc definition structure is normally performed.

35. (Original) An information reproduction apparatus for reproducing information from a write-once read-many information recording medium, wherein:

at least one disc management working area is sequentially allocated in a predetermined direction on the write-once read-many information recording medium;

in the at least one disc management working area, disc management information, which is management information about the write-once read-many information recording medium, and disc definition structure containing positional information about the disc management information, are provided;

latest disc management information and latest disc definition structure are provided in the predetermined direction, the latest disc management information preceding the latest disc definition structure in the predetermined direction;

the latest disc management information is disc management information provided in a recorded disc management working area neighboring a border between the recorded disc management working area and an unrecorded disc management working area;

the latest disc definition structure is a disc definition structure containing positional information about the latest disc management information;

the latest disc definition structure is provided at a predetermined position in the recorded disc management working area neighboring the border, the predetermined position being capable of being calculated based on the border as a reference,

the information reproduction apparatus comprising:

(a) a section for searching for a position of the border to obtain border positional information indicating the position of the border;

(b) a section for reproducing the latest disc definition structure based on the border positional information;

(c) a section for obtaining positional information about the latest disc management information based on the latest disc definition structure; and

(d) a section for reproducing the disc management information based on the positional information about the latest disc management information.

36. (Original) An information reproduction apparatus according to claim 35, wherein the disc management information has a variable size and the disc definition structure has a fixed size.

37. (Original) An information reproduction apparatus according to claim 35, wherein:

the write-once read-many information recording medium contains a data area for recording data and a spare area, the spare area being a replacement area for the data area;

the disc management information contains a replacement list containing correspondence relationship information indicating a correspondence relationship between a replacement source area contained in the data area and a replacement destination area contained in the spare area; and

the disc definition structure contains replacement list positional information which is positional information about the replacement list.

38. (Original) An information reproduction apparatus according to claim 37, wherein:

the predetermined direction is a direction from an inner periphery to an outer periphery of the write-once read-many information recording medium; and

the latest disc definition structure is provided at a predetermined position which is capable of being calculated based on an end of the recorded disc management working area neighboring the border as a reference.

39. (Original) An information reproduction apparatus according to claim 37, wherein:

the predetermined direction is a direction from an outer periphery to an inner periphery of the write-once read-many information recording medium; and

the latest disc definition structure is provided at a predetermined position which is capable of being calculated based on a beginning of the recorded disc management working area neighboring the border as a reference.

40. (New) A finalization determination method for determining whether or not a write-once read-many information recording medium is already finalized, wherein:

at least one disc management working area is allocated on the write-once read-many information recording medium;

the finalization determination method comprising the steps of:

(a) determining whether or not a finalization identifying flag is recorded on the write-once read-many information recording medium, the finalization identifying flag indicating prohibition of additional recording data into the at least one disc management working area; and

(b) determining, based on a result of the step (a), whether or not the write-once read-many information recording medium is changed from a write-once read-many state to a non-write-once read-many state.

41. (New) A finalization determination method according to claim 40, wherein:

in the at least one disc management working area, disc management information, which is management information about the write-once read-many information recording medium, and a disc definition structure containing positional information about the disc management information, are provided; and

the step (a) comprises determining whether or not the finalization identifying flag is recorded in at least one of the disc definition structure and the disc management information.

42. (New) A finalization determination method for determining whether or not a write-once read-many information recording medium is already finalized, wherein:

at least one disc management working area and at least one disc management area are allocated on the write-once read-many information recording medium;

in the at least one disc management working area, disc management information, which is management information about the write-once read-many information recording medium, and a disc definition structure containing positional information about the disc management information, are recorded; and

the finalization determination method comprising the steps of:

(a) reading data from one of the at least one disc management areas and determining whether or not the one of the at least one disc management areas is recorded; and

(b) determining, based on a result of the step (a), whether or not the write-once read-many information recording medium is changed from a write-once read-many state to a non-write-once read-many state.

43. (New) A finalization determination method according to claim 42, wherein the step (a) comprises determining whether or not the one of the at least one disc management areas is recorded, depending on an amplitude of a read signal indicating a result of the reading of the data.
44. (New) A finalization determination method according to claim 42, wherein the step (a) comprises determining whether or not the one of the at least one disc management areas is recorded, depending on whether or not the data is correctly read out.
45. (New) A finalization determination method according to claim 42, wherein:
- the step (a) comprises reading data from one of the at least one disc management areas, and based on a result of the reading of the data, determining whether or not last disc management information and last disc definition structure are recorded in the at least one disc management area;
 - the last disc management information is a latest disc management information provided in the at least one disc management area;
 - the last disc definition structure is a disc definition structure containing positional information about the last disc management information; and
 - the latest disc management information is disc management information recorded in a recorded disc management working area neighboring a border between the recorded disc management working area and an unrecorded disc management working area.
46. (New) A finalization determination method according to claim 42, wherein:
- the step (a) comprises determining whether or not the one of the at least one disc management areas is re-

corded, based on whether or not the last disc management information or the last disc definition structure is correctly read out;

the last disc management information is latest disc management information provided in the at least one disc management area;

the last disc definition structure is a disc definition structure containing positional information about the last disc management information; and

the latest disc management information is disc management information recorded in a recorded disc management working area neighboring a border between the recorded disc management working area and an unrecorded disc management working area.

47. (New) A finalization determination method according to claim 42, wherein:

the step (a) comprises reading data from each of the at least one disc management area and determining whether or not each of the at least one disc management area is recorded; and

the step (b) comprises determining that the write-once read-many information recording medium is changed from a write-once read-many state to a non-write-once read-many state when it is determined that at least one of the at least one disc management areas is recorded, and determines that the write-once read-many information recording medium is not changed from a write-once read-many state to a non-write-once read-many state when all of the at least one disc management areas are unrecorded.

48. (New) A finalization determination method according to claim 42, wherein the disc management area is a defect management area for recording management information about a defect area.

49. (New) A finalization determination apparatus for determining whether or not a write-once read-many information recording medium is already finalized, wherein:

at least one disc management working area is allocated on the write-once read-many information recording medium;

the finalization determination apparatus comprising:

(a) a section for determining whether or not a finalization identifying flag is recorded on the write-once read-many information recording medium, the finalization identifying flag indicating prohibition of additional recording data into the at least one disc management working area; and

(b) a section for determining, based on a result of determination by the section (a), whether or not the write-once read-many information recording medium is changed from a write-once read-many state to a non-write-once read-many state.

50. (New) A finalization determination apparatus according to claim 49, wherein:

in the at least one disc management working area, disc management information, which is management information about the write-once read-many information recording medium, and a disc definition structure containing positional information about the disc management information, are provided; and

the section (a) comprises a section for determining whether or not the finalization identifying flag is recorded in at least one of the disc definition structure and the disc management information.

51. (New) A finalization determination apparatus for determining whether or not a write-once read-many information recording medium is already finalized, wherein:

at least one disc management working area and at least one disc management area are allocated on the write-once read-many information recording medium;

in the at least one disc management working area, disc management information, which is management information about the write-once read-many information recording medium, and a disc definition structure containing positional information about the disc management information, are recorded; and

the finalization determination apparatus comprising:

(a) a section for reading data from one of the at least one disc management areas and determining whether or not the one of the at least one disc management areas is recorded; and

(b) a section for determining, based on a result of determination by the section (a), whether or not the write-once read-many information recording medium is changed from a write-once read-many state to a non-write-once read-many state.

52. (New) A finalization determination apparatus according to claim 51, wherein the section (a) comprises a section for determining whether or not the one of the at least one disc management areas is recorded, depending on an amplitude of a read signal indicating a result of the reading of the data.
53. (New) A finalization determination apparatus according to claim 51, wherein the section (a) comprises a section for determining whether or not the one of the at least one disc management areas is recorded, depending on whether or not the data is correctly read out.
54. (New) A finalization determination apparatus according to claim 51, wherein:

the section (a) comprises a section for reading data from one of the at least one disc management areas, and based on a result of the reading of the data, determining whether or not last disc management information and last disc definition structure are recorded in the at least one disc management area;

the last disc management information is a latest disc management information provided in the at least one disc management area;

the last disc definition structure is a disc definition structure containing positional information about the last disc management information; and

the latest disc management information is disc management information recorded in a recorded disc management working area neighboring a border between the recorded disc management working area and an unrecorded disc management working area.

55. (New) A finalization determination apparatus according to claim 51, wherein:

the section (a) comprises a section for determining whether or not the one of the at least one disc management areas is recorded, based on whether or not the last disc management information or the last disc definition structure is correctly read out;

the last disc management information is latest disc management information provided in the at least one disc management area;

the last disc definition structure is a disc definition structure containing positional information about the last disc management information; and

the latest disc management information is disc management information recorded in a recorded disc management working area neighboring a border between the recorded disc management working area and an unrecorded disc management working area.

56. (New) A finalization determination apparatus according to claim 51, wherein:

the section (a) comprises a section for reading data from each of the at least one disc management area and determining whether or not each of the at least one disc management area is recorded; and

the section (b) comprises a section for determining that the write-once read-many information recording medium is changed from a write-once read-many state to a non-write-once read-many state when it is determined that at least one of the at least one disc management areas is recorded, and determines that the write-once read-many information recording medium is not changed from a write-once read-many state to a non-write-once read-many state when all of the at least one disc management areas are unrecorded.

57. (New) A finalization determination apparatus according to claim 51, wherein the disc management area is a defect management area for recording management information about a defect area.

58. (New) A finalization method for finalizing a write-once read-many information recording medium, wherein:

at least one disc management working area is allocated on the write-once read-many information recording medium; and

the finalization method comprising the steps of:

(a) recording a finalization identifying flag onto the write-once read-many information recording medium, the finalization identifying flag indicating prohibition of additional recording data into the at least one disc management working area.

59. (New) A finalization method according to claim 58, wherein:

in the at least one disc management working area, disc management information, which is management information about the write-once read-many information recording medium, and a disc definition structure containing positional information about the disc management information, are provided; and

the step (a) comprises recording the finalization identifying flag into at least one of the disc definition structure and the disc management information.

60. (New) A finalization method for finalizing a write-once read-many information recording medium, wherein:

at least one disc management working area and at least one disc management area are allocated on the write-once read-many information recording medium;

in the at least one disc management working area, disc management information, which is management information about the write-once read-many information recording medium, and a disc definition structure containing positional information about the disc management information, are recorded; and

the finalization method comprising the steps of:

(a) recording last disc management information into one of the at least one disc management areas; and

(b) recording, based on the last disc management information, a last disc definition structure into the one of the at least one disc management areas;

the last disc management information is a latest disc management information provided in the at least one disc management area;

the last disc definition structure is a disc definition structure containing positional information about the last disc management information;

the latest disc management information is disc management information recorded in a recorded disc manage-

ment working area neighboring a border between the recorded disc management working area and an unrecorded disc management working area.

61. (New) A finalization method according to claim 60, further comprising changing latest disc definition structure to the last disc definition structure by changing positional information indicating a position of the recorded disc management working area neighboring the border to positional information indicating a position of one of the at least one disc management areas,

wherein the latest disc definition structure includes positional information about the latest disc management information.

62. (New) A finalization method according to claim 61, wherein the finalization method further comprises repeating the step (a) and the step (b) for each of the at least one disc management area to record the last disc management information and the last disc definition structure into all of the at least one disc management area.

63. (New) A finalization apparatus for finalizing a write-once read-many information recording medium, wherein:

at least one disc management working area is allocated on the write-once read-many information recording medium; and

the finalization apparatus comprising:

(a) a section for recording a finalization identifying flag onto the write-once read-many information recording medium, the finalization identifying flag indicating prohibition of additional recording data into the at least one disc management working area.

64. (New) A finalization apparatus according to claim 63, wherein:

in the at least one disc management working area, disc management information, which is management information about the write-once read-many information recording medium, and a disc definition structure containing positional information about the disc management information, are provided; and

the section (a) comprises a section for recording the finalization identifying flag into at least one of the disc definition structure and the disc management information.

65. (New) A finalization apparatus for finalizing a write-once read-many information recording medium, wherein:

at least one disc management working area and at least one disc management area are allocated on the write-once read-many information recording medium;

in the at least one disc management working area, disc management information, which is management information about the write-once read-many information recording medium, and a disc definition structure containing positional information about the disc management information, are recorded; and

the finalization apparatus comprising:

(a) a section for recording last disc management information into one of the at least one disc management areas; and

(b) a section for recording, based on the last disc management information, a last disc definition structure into the one of the at least one disc management areas;

the last disc management information is a latest disc management information provided in the at least one disc management area;

the last disc definition structure is a disc definition structure containing positional information about the last disc management information;

the latest disc management information is disc management information recorded in a recorded disc management working area neighboring a border between the recorded disc management working area and an unrecorded disc management working area.

66. (New) A finalization apparatus according to claim 65, further comprising a section for changing latest disc definition structure to the last disc definition structure by changing positional information indicating a position of the recorded disc management working area neighboring the border to positional information indicating a position of one of the at least one disc management areas,

wherein the latest disc definition structure includes positional information about the latest disc management information.

67. (New) A finalization apparatus according to claim 66, wherein the finalization method further comprises a section for repeatedly performing recording last disc management information into one of the at least one disc management areas, and recording, based on the last disc management information, a last disc definition structure into the one of the at least one disc management areas, for each of the at least one disc management area to record the last disc management information and the last disc definition structure into all of the at least one disc management area.

68. (New) A write-once read-many information recording medium, wherein:

at least one disc management working area is sequentially allocated in a predetermined direction,

the at least one disc management working area contains a plurality of blocks, each block being a unit for recording/reproducing data;

in each of the plurality of blocks, partial disc management information contained in disc management information, which is management information about the write-once read-many information recording medium, and a disc definition structure containing positional information about the partial disc management information, are provided; and

the disc definition structure is provided at a predetermined position in each of the plurality of blocks.

69. (New) A write-once read-many information recording medium according to claim 68, wherein the partial disc management information and the disc definition structure are provided in each of a plurality of blocks contained in a recorded disc management area neighboring a border between the recorded disc management working area and an unrecorded disc management working area.

70. (New) A write-once read-many information recording medium according to claim 69, wherein:

the write-once read-many information recording medium contains a data area for recording data and a spare area, the spare area being a replacement area for the data area;

the disc management information contains a replacement list containing correspondence relationship information indicating a correspondence relationship between a replacement source area contained in the data area and a replacement destination area contained in the spare area; and

in each of the plurality of blocks, a partial replacement list contained in the replacement list, and a disc definition structure containing positional information about the partial replacement list, are provided.

71. (New) A write-once read-many information recording medium according to claim 70, wherein the predetermined direction is

a direction from an inner periphery to an outer periphery of the write-once read-many information recording medium.

72. (New) A write-once read-many information recording medium according to claim 70, wherein the predetermined direction is a direction from an outer periphery to an inner periphery of the write-once read-many information recording medium.

73. (New) An information recording method for recording information onto a write-once read-many information recording medium, wherein:

at least one disc management working area is sequentially allocated in a predetermined direction on the write-once read-many information recording medium; and

the information recording method comprising the steps of:

(a) selecting an unrecorded disc management working area neighboring a border between a recorded disc management working area and the unrecorded disc management working area;

(b) recording partial disc management information contained in disc management information, which is management information about the write-once read-many information recording medium, into each of a plurality of blocks contained in the unrecorded disc management working area neighboring the border; and

(c) recording a disc definition structure containing positional information about the partial disc management information into each of a plurality of blocks contained in the unrecorded disc management working area neighboring the border;

each of the plurality of blocks is a unit for recording/reproducing data; and

the disc definition structure is provided at a predetermined position in each of the plurality of blocks.

74. (New) An information recording method according to claim 73, wherein:

the write-once read-many information recording medium contains a data area for recording data and a spare area, the spare area being a replacement area for the data area;

the disc management information contains a replacement list containing correspondence relationship information indicating a correspondence relationship between a replacement source area contained in the data area and a replacement destination area contained in the spare area;

in each of the plurality of blocks, a partial replacement list contained in the replacement list, and a disc definition structure containing positional information about the partial replacement list, are provided.

75. (New) An information recording method according to claim 74, wherein:

the step (b) further comprises determining whether or not the recording of the partial disc management information has been normally performed;

the step (c) further comprises determining whether or not the recording of the disc definition structure has been normally performed; and

the information recording method further comprises the step of:

(d) repeatedly performing the step (b) until the recording of the partial disc management information is normally performed, and repeatedly performing the step (c) until the recording of the disc definition structure is normally performed.

76. (New) An information reproduction method for reproducing information from a write-once read-many information recording medium, wherein:

at least one disc management working area is sequentially allocated in a predetermined direction on the write-once read-many information recording medium;

the at least one disc management working area contains a plurality of blocks, each of the plurality of blocks being a unit for recording/reproducing data;

in each of the plurality of blocks, partial disc management information contained in disc management information, which is management information about the write-once read-many information recording medium, and a disc definition structure containing positional information about the partial disc management information, are provided;

the disc definition structure is provided at a predetermined position in each of the plurality of blocks; and

the information reproduction method comprising the steps of:

(a) searching for a position of a border between a recorded disc management working area and an unrecorded disc management working area to obtain border positional information indicating the position of the border;

(b) reproducing the disc definition structure from the recorded disc management working area neighboring the border based on the border positional information;

(c) obtaining positional information about the partial disc management information based on the disc definition structure; and

(d) reproducing the partial disc management information from each of a plurality of blocks contained in the recorded disc management working area neighboring the border based on the positional information about the partial disc management information.

77. (New) An information reproduction method according to claim 76, wherein:

the write-once read-many information recording medium contains a data area for recording data and a spare area, the spare area being a replacement area for the data area;

the disc management information contains a replacement list containing correspondence relationship information indicating a correspondence relationship between a replacement source area contained in the data area and a replacement destination area contained in the spare area; and

in each of the plurality of blocks, a partial replacement list contained in the replacement list, and a disc definition structure containing positional information about the partial replacement list, are provided.

78. (New) An information reproduction method according to claim 77, wherein:

the step (c) further comprises the step of:

(e) determining whether or not the recorded disc management working area is an area in which the recording is normally completed, based on the positional information about the partial disc management information contained in the disc definition structure; and

when it is determined that the recorded disc management working area is an area in which the recording is not normally completed, a position of a border between the recorded disc management working area neighboring the border and a recorded disc management working area neighboring the recorded disc management working area neighboring the border, is searched for based on the positional information about the partial disc management information.

79. (New) An information reproduction method according to claim 78, wherein the step (e) comprises determining whether or not the recorded disc management working area is an area in which the recording is normally completed, by comparing the positional information about the partial disc management in-

formation with positional information about a border between the recorded disc management working area and an unrecorded disc management working area.

80. (New) An information recording apparatus for recording information onto a write-once read-many information recording medium, wherein:

at least one disc management working area is sequentially allocated in a predetermined direction on the write-once read-many information recording medium; and

the information recording apparatus comprising:

(a) a section for selecting an unrecorded disc management working area neighboring a border between a recorded disc management working area and the unrecorded disc management working area;

(b) a section for recording partial disc management information contained in disc management information, which is management information about the write-once read-many information recording medium, into each of a plurality of blocks contained in the unrecorded disc management working area neighboring the border; and

(c) a section for recording a disc definition structure containing positional information about the partial disc management information into each of a plurality of blocks contained in the unrecorded disc management working area neighboring the border;

each of the plurality of blocks is a unit for recording/reproducing data; and

the disc definition structure is provided at a predetermined position in each of the plurality of blocks.

81. (New) An information recording apparatus according to claim 80, wherein:

the write-once read-many information recording medium contains a data area for recording data and a spare

area, the spare area being a replacement area for the data area;

the disc management information contains a replacement list containing correspondence relationship information indicating a correspondence relationship between a replacement source area contained in the data area and a replacement destination area contained in the spare area;

in each of the plurality of blocks, a partial replacement list contained in the replacement list, and a disc definition structure containing positional information about the partial replacement list, are provided.

82. (New) An information recording apparatus according to claim 81, wherein:

the section (b) further comprises a section for determining whether or not the recording of the partial disc management information has been normally performed;

the section (c) further comprises a section for determining whether or not the recording of the disc definition structure has been normally performed; and

the information recording apparatus further comprises:

(d) a section for repeatedly performing recording of the partial disc management information until the recording of the partial disc management information is normally performed, and repeatedly performing recording of the disc definition structure until the recording of the disc definition structure is normally performed.

83. (New) An information reproduction apparatus for reproducing information from a write-once read-many information recording medium, wherein:

at least one disc management working area is sequentially allocated in a predetermined direction on the write-once read-many information recording medium;

the at least one disc management working area contains a plurality of blocks, each of the plurality of blocks being a unit for recording/reproducing data;

in each of the plurality of blocks, partial disc management information contained in disc management information, which is management information about the write-once read-many information recording medium, and a disc definition structure containing positional information about the partial disc management information, are provided;

the disc definition structure is provided at a predetermined position in each of the plurality of blocks; and

the information reproduction apparatus comprising:

(a) a section for searching for a position of a border between a recorded disc management working area and an unrecorded disc management working area to obtain border positional information indicating the position of the border;

(b) a section for reproducing the disc definition structure from the recorded disc management working area neighboring the border based on the border positional information;

(c) a section for obtaining positional information about the partial disc management information based on the disc definition structure; and

(d) a section for reproducing the partial disc management information from each of a plurality of blocks contained in the recorded disc management working area neighboring the border based on the positional information about the partial disc management information.

84. (New) An information reproduction apparatus according to claim 83, wherein:

the write-once read-many information recording medium contains a data area for recording data and a spare

area, the spare area being a replacement area for the data area;

the disc management information contains a replacement list containing correspondence relationship information indicating a correspondence relationship between a replacement source area contained in the data area and a replacement destination area contained in the spare area; and

in each of the plurality of blocks, a partial replacement list contained in the replacement list, and a disc definition structure containing positional information about the partial replacement list, are provided.

85. (New) An information reproduction apparatus according to claim 84, wherein:

the section (c) further comprises:

(e) a section for determining whether or not the recorded disc management working area is an area in which the recording is normally completed, based on the positional information about the partial disc management information contained in the disc definition structure; and

when it is determined that the recorded disc management working area is an area in which the recording is not normally completed, a position of a border between the recorded disc management working area neighboring the border and a recorded disc management working area neighboring the recorded disc management working area neighboring the border, is searched for based on the positional information about the partial disc management information.

86. (New) An information reproduction apparatus according to claim 85, wherein the section (e) comprises a section for determining whether or not the recorded disc management working area is an area in which the recording is normally completed, by comparing the positional information about the partial disc management information with positional information about a border between the recorded disc management working area and an unrecorded disc management working area.